1623

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.	:	09/834,596
Applicant	:	Watanabe, *et al.*
Filed	:	August 13, 2001
TC/A.AU.	:	1623
Examiner	:	Howard V. Owens Jr.

Confirmation No.: 4260

Docket No.	:	08841.105037 PHAR 2020
Customer No.	:	20786
Title	:	2-' or 3'-Hydroxymethyl Substituted Nucleoside Derivatives for Treatment of Hepatitis Virus Infections

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Transmittal of Supplemental Information Disclosure Statement

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The citation of information on the attached Form PTO-1449, "List of Art Cited by Applicant" is made pursuant to 37 C.F.R. §§ 1.56, 1.97, and 1.98. Copies of all listed references are enclosed. The citation of this information does not constitute an admission of priority or that any cited item is available as a reference, or a waiver of any right the applicant may have under applicable statutes, Rules of Practice in patent cases, or otherwise.

Applicant does not believe any fees are due. However, the Commissioner is hereby authorized to charge any additional fees, or credit any overpayment, to Deposit Account No. 11-0980.

Respectfully submitted,

Madeline I. Johnston
Reg. No. 36,174

Date: January 21, 2004

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191 Peachtree Street, N.E., Atlanta, GA 30303
Office: (404)572-4600/ Fax: 404-572-5145

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Tisha Hardrick

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Sheet	1	of	7

Complete if Known	
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Filing Date	April 13, 2001
First Named Inventor	Watanabe *et al.*
Group Art Unit	1623
Examiner Name	Howard V. Owens, Jr.
Attorney Docket Number	08841.105037 PHAR 2020

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U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. [1]	U.S. Patent Document Number	Kind Code (if known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages/Relevant Figures Appear
	AA	3,480,613		Walton *et al.*	11-25-1969	
	AB	5,977,061		Holy *et al.*	11-02-1999	
	AC	6,340,690	B1	Bachand *et al.* (Idenix Pharm.)	01-22-2002	
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	AH	2002/0147160	A1	Bhat *et al.*	10-10-2002	
	AI	2003/0008841	A1	Devos *et al.*	01-09-2003	
	AJ	2003/0028013	A1	Wang *et al.*	02-06-2003	
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	AN	FR	1,521,076 ✓		Merck & Co. Inc.	04-12-1968		
	AO	FR	1,581,628 ✓		Merck & Co. Inc.	09-19-1969		
	AP	FR	2,662,165 ✓	A1	Univ Pierre et Marie Curie, Paris	11-22-1991		
	AQ	GB	1,163,103 A ✓		Merck & Co. Inc.	09-04-1969		
	AR	GB	1,209,654 A ✓	A	Merck & Co. Inc.	10-21-1970		
	AS	JP	63-215694 ✓	A	Yamasa Shoyu Co. Ltd.	09-08-1988		
	AT	JP	06-228186 ✓	A	Yamasa Shoyu Co. Ltd.	08-16-1994		
	AU	WO	98/16184 ✓	A2	ICN Pharmaceuticals Inc.	04-23-1998		
	AV	WO	99/43691 ✓	A1	Emory U./Georgia Res. Found.	09-02-1999		

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	BA	WO	00/09531	A2	Novirio (Idenix Pharmaceuticals)	02-24-2000		
	BB	WO	01/16671	A1	Novirio (Idenix Pharmaceuticals)	03-08-2001		
	BC	WO	01/32153	A2	Biochem Pharma, Inc.	05-10-2001		
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	BE	WO	01/68663	A1	ICN Pharmaceuticals Inc.	09-20-2001		
	BF	WO	01/79246	A2	Pharmasset Ltd..	10-25-2001		
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	BI	WO	01/96353	A2	Novirio (Idenix); CNRC	12-20-2001		
	BJ	WO	02/03997	A1	ICN Pharmaceuticals Inc.	01-17-2002		
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	BL	WO	02/32920	A2	Pharmasset Ltd.	04-25-2002		
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	BN	WO	02/057287	A2	Merck & Co. Inc.; Isis Pharm.	07-25-2002		
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	BP	WO	02/070533	A2	Pharmasset Ltd.	09-12-2002		
	BQ	WO	02/094289	A1	F. Hoffmann-La Roche AG	11-28-2002		
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	BS	WO	03/026589	A2	Novirio (Idenix Pharmaceuticals)	04-03-2003		
	BT	WO	03/026675	A1	Novirio (Idenix Pharmaceuticals)	04-03-2003		
	BU	WO	03/051899	A1	Ribapharm Inc.	06-26-2003		
	BV	WO	03/061385	A1	Ribapharm Inc.	07-31-2003		
	BW	WO	03/061576	A2	Ribapharm Inc.	07-31-2003		
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	BY	WO	03/062256	A1	Ribapharm Inc.	07-31-2003		
	BZ	WO	03/062257	A1	Ribapharm Inc.	07-31-2003		

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	CA	WO	03/063771	A2	Pharmasset Ltd.	08-07-2003		
	CB	WO	03/068162	A2	Pharmasset Ltd.	08-21-2003		
	CC	WO	03/072757	A2	Biota Inc.	09-04-2003		
	CD	WO	03/093290	A2	Genelabs Technologies Inc.	11-13-2003		

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

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	CE	ALTMANN, K.H., *et al.*, "The Synthesis of 1'-methyl carbocyclic thymidine and its effect on nucleic acid duplex stability", *Synlett*, Thieme Verlag, Stuttgart, De, **October 1994**, *10*, 853-855	
	CF	BAGINSKY, S.G. *et al.*, "Mechanism of action of a pestivirus antiviral compound," *Proc. Nat. Acad. Sci. (USA)* **2000**, 97(14), 7981-7986.	
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	DA	FARKAS, J., "Nucleic acids components and their analogues. LXXIX. Synthesis of methyl 1-deoxy-D-psicofuranosides substituted at C(1) with haolo atoms or a mercapto group,", *Collect. Czech. Chem. Commun.* **1966**, *31*, 1535-1543.	
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	EB	LAVAIRE, S., et al, "3'-deoxy-3'-trifluoromethyl nucleosides : synthesis and antiviral evaluation," *Nucleosides & Nucleotides*, **1998**, 17, 2267-2280.	
	EC	LEYSSEN, P. *et al.*, "Perspectives for the treatment of infections with Flaviviridae", *Clinical Microbiology Reviews*, Washington, D.C., (**January 2000**), 13(1), 67-82.	
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	EE	MATSUDA, A., *et al.*, "Radical deoxygenation of tert-alcohols in 2-branched-chain sugar pyrimidine nucleosides : synthesis and antileukemic activity of 2'-deoxy-2'(S)-methylcytidine, " *Chem. Pharm. Bull.*, **1987**, *35*, 3967-3970.	
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	EI	MIKHAILOV, S.N., *et al*, "Synthesis and properties of 3'-C-methylnucleosides and their phosphoric esters," *Carbohydrate Research*, **1983**, *124*, 75-96.	
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	FA	OIVANEN, M., *et al*, "Additional evidence for the exceptional mechanism of the acid-catalysed hydrolysis of 4-oxopyrimidine nucleosides : hydrolysis of 1-(1-alkoxyalkyl)uracils. Seconucleosides. 3'-C-alkyl nucleosides and nucleosides 3',5'-cyclic monophosphates," *J. Chem. Soc. Perkin Trans.*, **1994**, *2*, 309-314.	
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	FC	PAN-ZHOU X-R, *et al.*, "Differential effects of antiretroviral nucleoside analogs on mitochondrial function in HepG2 cells," *Antimicrob Agents Chemother* **2000**; *44(no.3)*, 496-503.	
	FD	ROSENTHAL, A., *et al*, "Branched-chain sugar nucleosides. Synthesis of 3'-C-ethyl (and 3'-C-butyl)uridine," *Carbohydrate Research*, **1980**, *79*, 235-242.	
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Complete if Known	
Application Number	09/834,596
Filing Date	April 13, 2001
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Group Art Unit	1623
Examiner Name	Howard V. Owens, Jr.
Attorney Docket Number	08841.105037 PHAR 2020

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	GA	TUNITSKAYA, V.L., *et al*, "Substrate properties of C'-methyl UTP derivatives in T7 RNA polymerase reactions. Evidence for N-type NTP conformation," *FEBS Letters*, **1997**, *400*, 263-266.	
	GB	USUI, H., *et al*, "Synthesis of 2'-deoxy-8,2'-ethanoadenosine and 3'-deoxy-8,3'-ethanoadenosine (Nucleosides and Nucleotides. LXIV)," *Chem. Pharm. Bull.*, **1986**, *34*, 15-23.	
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